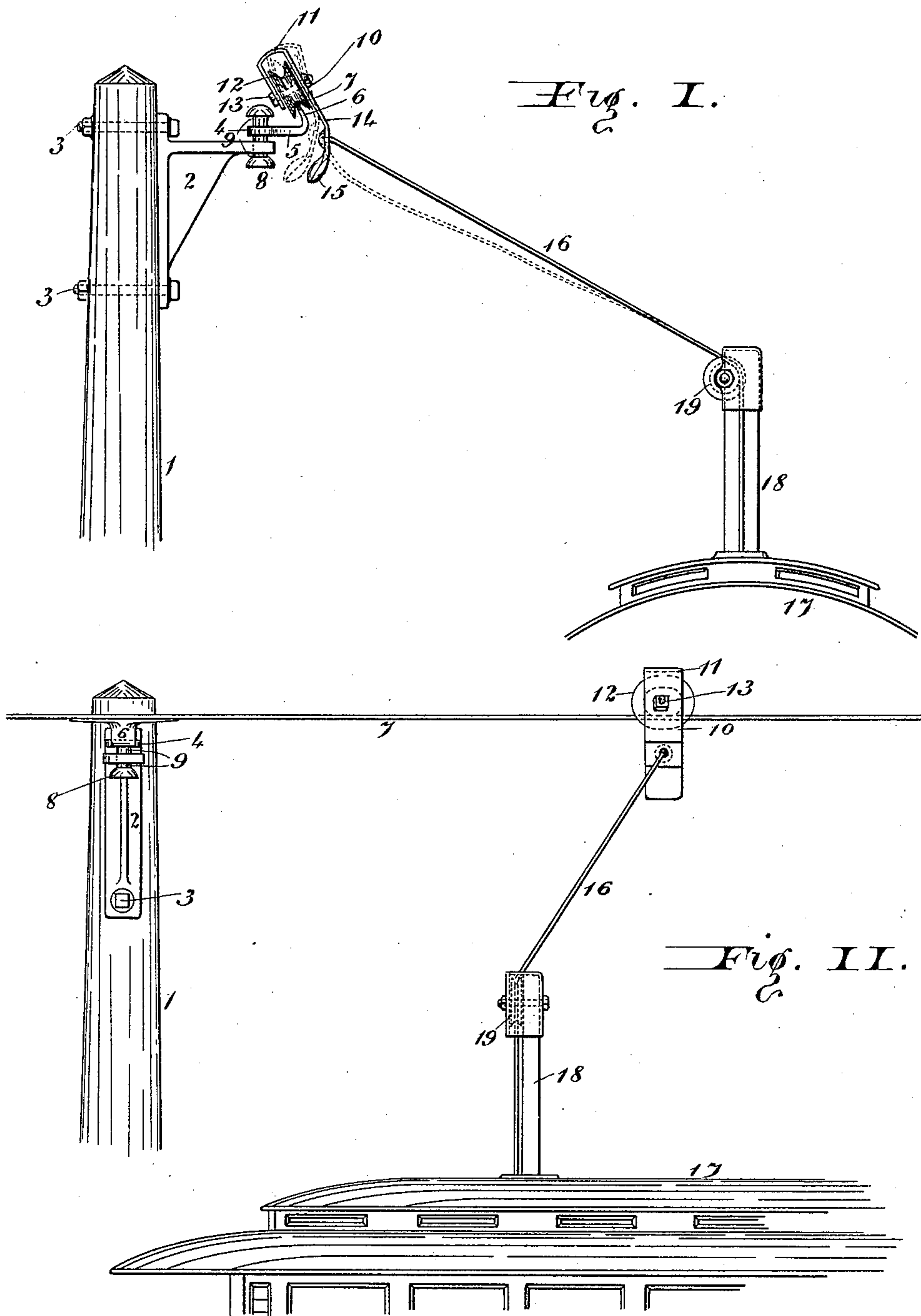


(No Model.)

W. A. STEVENS.
ELECTRIC RAILWAY TROLLEY AND SUPPORT.

No. 466,196.

Patented Dec. 29, 1891.



Witnesses
Emma Arthur
Edward H. Knight.

INVENTOR.
Wilbur A. Stevens
by *Amie R. Stevens*
att'n.

UNITED STATES PATENT OFFICE.

WILBUR A. STEVENS, OF KANSAS CITY, MISSOURI.

ELECTRIC-RAILWAY TROLLEY AND SUPPORT.

SPECIFICATION forming part of Letters Patent No. 466,196, dated December 29, 1891.

Application filed September 22, 1890. Serial No. 365,822. (No model.)

To all whom it may concern:

Be it known that I, WILBUR A. STEVENS, of Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in an Electric-Railway Trolley and Support, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in trolley-supports for electric railways and the peculiar construction of trolley adapted to travel on said support; and my invention consists in features of novelty hereinafter described, and pointed out in the claims.

Figure I is a front elevation of my improved device. Fig. II is a side elevation of the same.

Referring to the drawings, 1 represents the ordinary post, by which the line-wire for carrying the electric current is supported.

2 represents a bracket, which is secured to the post 1 by means of bolts 3.

4 represents a bent arm, said arm having a portion 5, which extends in a horizontal plane parallel with the track (not shown) on which the car travels, and a portion 6, which extends in an oblique line with the track. To the upper end of the oblique portion of the arm 4 is suitably secured the electric-current-carrying wire 7, through which power is transmitted to the motor (not shown) beneath the car. The arm 4 is secured to the bracket 2 by means of a bolt 8, with proper insulation material between the bracket, arm, and bolt, as shown at 9.

My improved trolley is formed of a frame 10, having an inverted-U-shaped portion 11 at one end, to which the grooved pulley 12 is journaled by means of a pin or bolt 13, said frame also having a bent portion 14 and a balancing-weight 15 on its lower end.

16 represents a conducting wire or cord, by which means the current is transmitted from the line-wire 7 to the car.

17 represents the car, to the roof of which is secured a post 18.

19 represents an anti-friction pulley, over which the wire 16 passes on its way to the

motor, said pulley tending to avoid friction of said wire.

In operation the trolley is drawn along on the wire 7 by the car, as shown in Fig. II, said trolley traveling in the oblique position, as shown in Fig. I, in line with the oblique support. It will be seen that it would be almost impossible for a trolley in this position to leave its support while in operation. By this construction I am also enabled to place the line-wires at one side of the street instead of near the center, as they are now ordinarily supported. When the tension is released on the wire 16, the trolley will assume the position shown in dotted lines, Fig. I, and the weight 15, seeking its center of gravity, will hold it in this position.

I have shown but one pulley in my trolley; but I do not confine myself to any specified number, as two or more may be used, if desired.

I claim as my invention—

1. The combination of the post 1, bracket 2, secured to the post, arm 4, secured to the bracket, said arm having a portion 5, extending in a horizontal plane, and a portion 6, extending in an oblique plane, a line-wire 7 being suitably secured to the outer end of portion 6, substantially as described, and for the purpose set forth.

2. The combination of an oblique support, a line-wire rigidly attached thereto, a grooved pulley adapted to travel on said wire, a suitable frame provided with a single rigid depending arm, and in which frame the pulley is journaled, a weight attached to said depending arm for balancing the pulley on the line-wire, and means for connecting said frame with a car, said connection being made with the depending arm at a point intermediate between the weight and pulley, substantially as described, and for the purpose set forth.

3. The combination of the arm 4, having an oblique portion 6, wire 7, attached to the portion 6, frame 10, having an inverted-U-shaped portion 11, grooved pulley 12, journaled to the portion 11, a bent portion 14 in said frame, and a weight 15 on its lower end,

substantially as described, and for the purpose set forth.

5 4. The combination of a line-wire secured to an oblique support, a trolley traveling in line with said oblique support, and conductor 16, connecting the trolley with a car, said conductor 16 traveling over an anti-friction roller

19, supported by the car, substantially as described, and for the purpose set forth.

WILBUR A. STEVENS.

Witnesses:

JAS. E. KNIGHT,

MAURICE E. BATES.